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ABSTRACT

Since the latter part of the 19th century, a fervent debate has ensued about quantitative and qualitative research paradigms. From these disputes, purists have emerged on both sides. Quantitative purists express assumptions that are consistent with a positivist philosophy, whereas qualitative purists (i.e., post-positivists, post-structuralists, and post-modernists) reject positivism. The major differences that exist between the two sets of purists are at the level of logic of justification. Unfortunately, much of the quantitative-qualitative debate has involved the practice of polemics, which has tended to obfuscate rather to clarify, and to divide rather than to unite educational researchers. This paper provides a historical background of the quantitative-qualitative debate. Moreover, the paper provides evidence that rejects the assertions of purists on both ends of the epistemological continuum. Further, it contends that a false dichotomy exists between the paradigms. The paper calls for researchers to strive for epistemological ecumenicalism by using mixed methodological approaches. It provides a myriad of reasons and purposes for combining research methods and outlines advantages of this pragmatic approach. (Contains 45 references.) (BT)

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Positivists, Post-positivists, Post-structuralists, and Post-modernists: Why Can't We All Get along? Towards a Framework for Unifying Research Paradigms

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Abstract

Since the latter part of the 19th century, a fervent debate has ensued about quantitative and qualitative research paradigms. From these disputes, purists have emerged on both sides. Quantitative purists express assumptions that are consistent with a positivist philosophy, whereas qualitative purists (i.e., post-positivists, post-structuralist, and post-modernists) reject positivism. The major differences that exist between the two sets of purists are at the level of logic of justification. Unfortunately, much of the quantitative-qualitative debate has involved the practice of polemics, which has tended to obfuscate rather than to clarify, and to divide rather than to unite educational researchers.

The present paper provides a historical background of the quantitative-qualitative debate. Moreover, evidence is provided that rejects the assertions of purists on both ends of the epistemological continuum. Further, it is contended that a false dichotomy exists between the paradigms. A call is made for researchers to strive for epistemological ecumenicalism by using mixed methodological approaches. A myriad of reasons and purposes are provided for combining research methods, and advantages of this pragmatic approach are outlined.

Positivists, Post-positivists, Post-structuralists, and Post-modernists:

Why Can't We All Get along? Towards a Framework for Unifying Research Paradigms

Since the latter part of the 19th century, a fervent debate has ensued about quantitative and qualitative research paradigms. From these disputes, purists have emerged on both sides. Quantitative purists express assumptions that are consistent with a positivist philosophy, whereas qualitative purists (e.g., post-positivists, post-structuralist, and post-modernists) reject positivism.

Prior to the late 19th century, within the physical sciences, as well as within other disciplines, research evolved from the ontological, epistemological, axiological, rhetorical, and methodological assumptions of logical positivism, a philosophy of science that sought to promote knowledge. Logical positivism soon became the essence of science, in which "hard" data were collected systematically and verified objectively. Mathematical and statistical procedures became popularized for analyzing these data via probabilistic and inferential assumptions, in an attempt to explain, to predict, and to control phenomena.

At the turn of the 20th century, social scientists began to question seriously whether or not they were justified in utilizing the scientific method of the physical sciences to study social and human issues (Smith & Heshusius, 1986). Comte and Dilthey emerged on the extreme ends of the continuum. Specifically, whereas Comte's positivistic ideology represented the most fervent support for the use of the scientific method, Dilthey's interpretive/hermeneutical approach to science emerged as the first serious challenge to positivism (Smith, 1983).

Comte believed that social observations should be treated as entities in much the

same way as physical scientists treated physical phenomena. He contended that the observer could be separated from what was being observed. That is, he argued that the role of the social scientist was independent of the observable reality. Advocates of Comte further maintained that social science inquiry was value-free, that time- and context-free generalizations were possible, and that real causes to social scientific outcomes could be determined reliably. Thus, according to this school of thought, social science researchers should strive to eliminate their biases, move beyond common-sense preconceptions, and not become emotionally involved with the object of study (Smith, 1983). Social science positivists called for rhetorical neutrality, involving an exclusively formal writing style using the impersonal voice and specific terminology, in which the discovery of social laws was the major focus.

Dilthey challenged the central tenets of positivism, advocating an alternative methodology for the social science field. He noted that whereas the physical sciences dealt with inanimate objects that often exist independently of human beings, the social sciences focused on the processes and products of the human mind (Ermarth, 1978; Hodges, 1944, 1952). Thus, Dilthey contended that social inquiry should not be conducted with the methods of the physical sciences due to a fundamental difference in subject matter. Dilthey argued that no objective social reality existed. Unfortunately, he faced a dilemma that he was unable to solve. Specifically, Dilthey reasoned that if meaning was context specific and multiple realities existed such that understanding was hermeneutical, then interpretation would depend on the reality of the interpreter. Given this proposition, Dilthey wondered whether an optimal interpretation would exist, and, if so, how one best interpretation could

be determined. Consequently, Dilthey was caught between assumptions that were epistemologically antifoundational and a desire for criteria that were foundational (Smith, 1983). Interestingly, Dilthey was not able to find a solution to this dilemma (Hughes, 1958).

Weber was greatly influenced by Dilthey. However, Weber disagreed with Dilthey in important ways. In particular, he believed that the two sciences differed not because of an inherent disparity in subject matter but rather because of a different interest taken in the subject matter (Smith, 1983). Nevertheless, as noted by Smith and Heshusius (1986), Weber thought that both research paradigms had important shortcomings; namely, positivism could not attach meaning to a social reality, whereas idealism did not entertain the possibility that a social reality might be the existing reality. Weber's solution to Dilthey's problem, therefore, was to attempt to bring together the positivist and interpretivist perspectives (Aron, 1970; Benton, 1977; Outhwaite, 1975). Unfortunately, Weber failed in his task of unifying quantitative and qualitative paradigms (Outhwaite, 1983). Thus, shortly after the turn of the 20th century, these two paradigms were in direct competition with one another. This polarization continued beyond the second world war.

During the 1950s and 1960s *post-positivism* emerged (e.g., Hanson, 1958; Popper, 1959). Post-positivism represented a modified dualism, inasmuch as post-positivists believed that reality is constructed and that research is influenced by the values of investigators. However, at the same time, they believed that some lawful, reasonably stable relationships among social phenomena prevail. Notwithstanding, proponents of this school of thought tended to emphasize deductive logic, with much of their research being influenced by theory/hypothesis, which was reflected in a predominantly formal writing style

using the impersonal voice.

Post-positivism gave birth to more radical paradigms (e.g., *constructivism*, *interpretivism*, *naturalism*). Many theorists representing these new iconoclastic paradigms began to argue for the superiority and exclusiveness of post-structuralism, post-modernism, and the like. These idealists believed that multiple-constructed realities (i.e., *relativism*) abound, that time- and context-free generalizations are not possible, that inquiry is value-bound, that it is impossible to distinguish between cause and effects, that logic flows from specific to general, and that knower and known are inseparable. One of their trademarks became their informal writing style using personal voice and limited definitions. The extreme relativists, like positivists, believed in the purity of their paradigm, advocating the *Incompatibility Thesis* (Howe, 1988), which posited that paradigms and methods could not and should not be mixed.

In the 1960s, *pragmatists* began to advocate the use of mixed methodologies (i.e., combining quantitative and qualitative research designs). Mixed methods became very popular in the 1980s. In the 1990s, came the emergence of mixed model studies (i.e., combining quantitative and qualitative approaches within different stages of the research process) (Tashakkori & Teddlie, 1998). Pragmatists entertained the existence of causal relationships, but stated that it may not be possible to pin down many of these relationships.

Pragmatists accepted external reality and believed that values played a role in the interpretation of results. However, they believed in the existence of both subjective and objective points of view. Asserting that research is influenced by theory/hypothesis and by

observations, facts, and evidence, pragmatists utilized both inductive and deductive logic, choosing explanations that best produced desired outcomes, and combining formal and informal writing styles that used both the personal and impersonal voice.

The pragmatist philosophy was consistent with the *Compatibility Thesis* (Howe, 1988; Reichardt & Rallis, 1994), which posited that quantitative and qualitative research were neither mutually exclusive nor interchangeable. Rather, the actual relationship between the two paradigms was one of isolated events lying on a continuum of scientific inquiry (Howe, 1988; Reichardt & Rallis, 1994). Moreover, pragmatists contended that the logic of justification did not preclude the combining of quantitative and qualitative research designs. Simply put, pragmatists asserted that a false dichotomy exists between quantitative and qualitative approaches and that researchers should make the most efficient use of both paradigms in order to understand educational and social phenomena.

Thus, currently, three major schools of thought prevail with respect to the relationship between quantitative and qualitative research. *Purists* assert that paradigms and methods should not be mixed and advocate mono-method studies. *Situationalists* argue that certain methods are more appropriate for specific situations. Finally, *pragmatists* attempt to integrate methods within a single study (Creswell, 1995). The contention this present essay is that purists are operating on faulty assumptions that are discussed in the next section.

Misconceptions Held by Purists

A close examination of the assumptions posited by purists on both ends of the epistemological continuum reveals several important myths. For example, positivists claim

that their techniques are objective, yet they overlook many subjective decisions that they make throughout the research process. These subjective decisions include use of the 5% level of significance to test null hypotheses. Indeed, there is no magical justification for using this 5% criterion. A 4% level or a 6% level of significance, for example, could have been utilized just as easily. Yet, use of this 5% yardstick has become a ritual among quantitative researchers. Indeed, some theorists assert that this seeming obsession with null hypothesis significance testing in general and the 5% standard in particular has seriously impeded the advancement of educational research (Cohen, 1997). Interestingly, as noted by Cohen (1997), as long ago as 1938, Joseph Berkson vehemently criticized the use of null hypothesis significance testing. Ironically, many researchers ignore the fact that statistical significance of an effect is largely dependent on sample size (e.g., Daniel, 1998a, 1998b; Onwuegbuzie & Daniel, 2000, in press; Thompson, 1998a, 1998b), with the typical level of power for medium effect sizes in the behavioral and social sciences disturbingly hovering around .50 (Cohen, 1962).

Additionally, the lack of random sampling prevalent in educational research, which limits generalizability (Onwuegbuzie, 2000a), as well as the fact that variables can explain as little as 2% of the variance of an outcome measure to be considered non-trivial (Cohen, 1988), make it clear that all empirical research in these fields are subject to considerable error in analysis and interpretation. Thus, positivism in the social science has not enjoyed the same level of success with respect to understanding phenomena as it has in the physical sciences. This prevents researchers from being as adamant about positivism in the social sciences as in the physical sciences.

A criticism of extreme relativism is their claim that there are always multiple, contradictory, yet valid accounts of the same phenomenon. As noted by Onwuegbuzie (2000b), this attitude leads many qualitative researchers to adopt an "anything goes" relativist attitude, thereby not paying due attention to providing an adequate rationale for interpretations of their data. For example, many qualitative researchers do not sufficiently document how they identify emergent themes. As a result, many qualitative methods of analyses "often remain private and unavailable for public inspection" (Constas, 1992, p. 254). Yet, if there cannot be standards (i.e., validity) for judging the "trustworthiness" of qualitative research, then how is it that editors of qualitative journals can determine which studies are published? Surely, editors use criteria for judging the quality of qualitative research articles?

Moreover, as noted by Hammersley (1992), the fundamental problem with the position of both sets of purists is that their assumptions are self-refuting. With respect to positivists, their claim of the verifiability principle is self-refuting because it is neither empirical nor logical, and therefore is meaningless, *per se*. With regard to interpretivists, to be consistent with their philosophies, extreme realists must accept that their claims that all truth is relative is itself only true in the relative sense; thus, in terms of other frameworks it may be false. Accordingly, relativism is both true and false. Moreover, to be consistent, realists must treat the quantitative paradigm not only as being true in its own terms, but a reality that is as good as any other reality (e.g., the qualitative paradigm)!

As stated by Rist (1977, p. 42), there has been a "continual fixation upon what is 'good' about one approach or 'bad' about another." This obsession has been counter-

productive for the progression of social science. With as many flaws and contradictions that prevail vis-à-vis the tenets of both quantitative and qualitative purists, including those outlined above, it is clear that no one paradigm is a hegemony in educational research.

In fact, the major differences that exist between the two sets of purists are at the level of *logic of justification* (Smith & Heshusius, 1986). However, the logic of justification does not dictate what specific data collection and data analytical methods should be utilized. In other words, differences in the logic of justification do not prevent a quantitative researcher from utilizing procedures more typically associated with qualitative research, and *vice versa*. For example, a qualitative researcher can collect empirical information, whereas a quantitative researcher can collect observational or interview data. Thus, the fact that no one-to-one correspondence exists between the logic of justification and the research procedures used, has led some researchers to turn the paradigmatic wars into a discussion of methodological differences that prevail between quantitative and qualitative studies. Moreover, this relative independence between the logic of justification and procedure justifies the combining of quantitative and qualitative data collection and data analysis techniques.

False Dichotomies

The war between proponents of the quantitative and qualitative camps has been bitter and relentless over the last several decades. Unfortunately, much of the quantitative-qualitative debate has involved the practice of polemics, which has tended to obfuscate rather than to clarify, to stereotype rather than to enlighten, and to divide rather than to unite educational researchers. Out of these disputes, misleading clichés have emerged

that have taken a life of their own. The intricacies and subtleties of research have been reduced to simplistic but obdurate reifications.

The impasse reached has only exacerbated the situation, leading both sets of purists to entrench further their epistemological stances. In the meantime, paradigm superiority has been treated as an end in itself (Mills, 1959), with proponents of both camps being fixated about what is "good" or "right" about one ideology and what is "bad" or "wrong" about the other (Rist, 1979). In effect, rather than being a conflict about philosophy, it has been treated as a conflict about morals (Homans, 1949). It is no wonder that Miles and Huberman (1984, p. 21) concluded that "epistemological purity doesn't get research done."

This deep division among researchers has prompted many students to ask "Why can't we all just get along?" At the very least, researchers should strive for peaceful coexistence. This can be accomplished by researchers on both sides of the fence toning down their rhetoric and refrain from using pejorative and inflammatory language when referring to the other paradigm because such negative discourse does irreparable harm to the social and behavioral science field.

Moreover, based on the fact that both quantitative and qualitative paradigms have inherent strengths and weakness, researchers should strive for epistemological ecumenism. Such epistemological ecumenism will enable researchers to re-frame how research paradigms should be viewed. As noted by Newman and Benz (1998), rather than representing a dichotomy, positivist and non-positivist philosophies lie on an epistemological continuum. Indeed, all the various dichotomies that are used to distinguish

quantitative and qualitative paradigms should be re-conceptualized as lying on continua. These include realism versus idealism, foundational versus antifoundational, objective versus subjective, hard versus soft, scientists versus critics, personal versus impersonal, deductive reasoning versus inductive reasoning, rigor versus intuition, generalization versus uniqueness, logistic versus dialectic, rationalism versus naturalism, reductionistic versus holistic, causal versus acausal, macro versus micro, correspondence versus coherence, quantifiers versus describers, and numbers versus words. Such a re-framing allows researchers to focus more on research strategies rather than on paradigmatic issues. Indeed, although many research procedures typically are linked to certain paradigms, this linkage between research paradigm and research methodology is not sacrosanct. Indubitably the most effective way of attaining epistemological ecumenicalism, or what Onwuegbuzie (2000c) terms as becoming a "bi-researcher," involves using mixed methodological approaches.

Toward a Framework for Mixed Methodological Research

Once pragmatists had promoted the combining of quantitative and qualitative techniques in the 1950s, the next step was to outline how this could be undertaken. Campbell and Fiske (1959) is credited as introducing the idea of using multiple research methods. A few years later, Webb, Campbell, Schwartz, and Sechrest (1966) coined the phrase *triangulation*. This type of triangulation is referred to as between- or across-method triangulation. However, it was Denzin (1978) who first outlined how to triangulate. Denzin (1978, p. 291) defined triangulation as "the combination of methodologies in the study of the same phenomenon." Denzin outlined the following four types of triangulation: (a) Data

triangulation (i.e., use of a variety of sources in a study), (b) Investigator triangulation (i.e., use of several different researchers), (c) Theory triangulation (i.e., use of multiple perspectives to interpret the results of a study), and (d) Methodological triangulation (i.e., use of multiple methods to study a research problem). Denzin also distinguished *within-methods* triangulation, which refers to the use of multiple quantitative or multiple quantitative approaches, from *between-methods* triangulation, involving both quantitative and qualitative approaches, concluding that the former had limited value because essentially only one method is being used such that any inherent weakness stemming from the paradigm used will prevail regardless of the specific research design used within that paradigm.

On the other hand, Denzin (1978) extolled the virtues of between-method triangulation, contending that by utilizing mixed methods, "the bias inherent in any particular data source, investigators, and particularly method will be canceled out when used in conjunction with other data sources, investigators, and methods" (p. 14); and (b) "the result will be a convergence upon the truth about some social phenomenon" (p. 14). According to Denzin, three outcomes arise from triangulation: convergence, inconsistency, and contradiction. Whichever of these outcomes prevail, the researcher can construct good explanations of the observed social phenomena. Similarly, although acknowledging that triangulation may not be suitable for all research purposes, Jick (1979) noted the following advantages of triangulation: (a) it allows researchers to be more confident of their results; (b) it stimulates the development of creative ways of collecting data; (c) it can uncover contradictions, (d) it can lead to thicker, richer data; (e) it can lead to the synthesis or

integration of theories; and (f) by virtue of its comprehensiveness, it may serve as the litmus test for competing theories.

Morse (1991) outlined two types of methodological triangulation: simultaneous or sequential. According to this theorist, simultaneous triangulation is the simultaneous use of qualitative and quantitative methods in which there is limited interaction between the two sources of data during the data collection stage, but the findings complement one another at the data interpretation stage. On the other hand, sequential triangulation is utilized when the results of one approach are necessary for planning the next method.

Meanwhile, in 1973, Sieber provided a list of reasons to combine quantitative and qualitative research. He outlined how such a combination can be effective at the research design, data collection, and data analysis stage. For example, at the research design stage, quantitative data can assist the qualitative phase by identifying a representative sample, as well as outlying (i.e. deviant) sample members. At the data collection stage, quantitative data can play a role in providing baseline information and helping to avoid "elite bias" (talking only to high-status individuals). During the data analysis stage, quantitative data can facilitate the assessment of generalizability of the qualitative data and shedding new light on qualitative findings.

Conversely, at the design stage, qualitative data can assist the quantitative component of a study by helping with conceptual and instrument development. At the data collection stage, qualitative data can help in facilitating the data collection process. Finally, during the data analysis stage, qualitative data can play an important role by interpreting, clarifying, describing, and validating quantitative results, as well as through the modification

of theory.

More recently, Sechrest and Sidana, (1995) listed four reasons for mythological pluralism: (a) for verification purposes, (b) to provide some basis for estimating possible error in the underlying measures, (c) to facilitate the monitoring of data collected, and (d) to probe a dataset in order to determine its meaning. Also, Dzurec and Abraham (1993, pp. 76-77) identified the following six "pursuits" that link qualitative and quantitative research: (a) the pursuit of mastery over self and the world, (b) the pursuit of understanding through recomposition, (c) the pursuit of complexity reduction to enhance understanding, (d) the pursuit of innovation, (e) the pursuit of meaningfulness, and (f) the pursuit of truthfulness.

Rossman and Wilson (1985) identified the following three reasons for combining quantitative and qualitative research: (a) to enable confirmation or corroboration of each other through triangulation; (b) to enable or to develop analysis in order to provide richer data; and (c) to initiate new modes of thinking by attending to paradoxes that emerge from the two data sources. Building on Rossman and Wilson's (1985) work, Greene, Caracelli, and Graham (1989) outlined the following five broad purposes of mixed-methodological studies: (a) Triangulation (i.e., seeking convergence and corroboration of results from different methods studying the same phenomenon); (b) Complementarity (i.e., seeking elaboration, enhancement, illustration, clarification of the results from one method with results from the other method); (c) Development (i.e., using the results from one method to help inform the other method); (d) Initiation (i.e., discovering paradoxes and contradictions that lead to a re-framing of the research question); and (e) Expansion (i.e.,

seeking to expand the breadth and range of inquiry by using different methods for different inquiry components).

After reviewing 57 mixed-method evaluation studies, and using their definition of these procedures, Greene et al. concluded that expansion (41%) was the most common purpose, followed by complementarity (33%), development (11%), and initiation (7%) and triangulation (7%). Greene et al. (1989) also outlined design elements that influence the selection of a particular mixed methods design, which they categorized as (a) methods, (b) the paradigmatic framework, (c) the phenomena under investigation, (d) the relative status of the different methods, and (e) criteria for implementation.

Creswell (1995), in his influential book, outlined the following five types of mixed method designs: (a) Two-phase studies, in which the researcher first conducts a quantitative phase of a study followed by a qualitative phase, or vice versa. (The two phases are separate.); (b) Parallel/simultaneous studies, in which the researcher conducts the quantitative and qualitative portions of the study simultaneously, (c) Equivalent status designs, in which the investigator conducts a study using both the quantitative and the qualitative approaches approximately equally, (d) Domininant-less-dominant studies, in which the inquirer conducts the investigation within a single dominant design, complemented to a small degree by a component representing the alternative paradigm; and (e) mixed methodology designs, which represent the highest degree of methodological mixing in which the researcher combines quantitative and qualitative researchers at many or all stages of the research process.

Tashakkori and Teddlie (1998) added a sixth type of mixed method design to

Creswell's (1995) list, namely: designs with multilevel use of approaches, in which researchers utilize different types of methods at different levels of data aggregation. Further, these theorists relabelled Creswell's "mixed methodology design" as "mixed model studies," which they defined as "studies that are products of the pragmatist paradigm and that combine the qualitative and quantitative approaches within different phases of the research process" (p. 19).

In addition to describing various types of mixed method designs, over the last decade, methods of mixed method data analysis have emerged. In particular, Caracelli and Greene (1993) provided a summary of the following mixed data analysis strategies used in the social and behavioral sciences: (a) data transformation (i.e., the transformation of one data type into another in order that both data can be analyzed simultaneously; (b) typology development (i.e., the analysis of one type of data yields a typology that is subsequently used as a framework applied in analyzing and contrasting the data types; (c) extreme-case analysis (i.e., extreme cases identified from the analysis of one data type and pursued via additional data collection and data analysis of data of the other type, with the goal of examining and modifying the initial explanation for the extreme cases); and (d) data consolidation/merging (i.e., the joint review of both data types to create new or combined variables or datasets, which can be expressed in either quantitative or qualitative form that are used in future analyses).

Similarly, Tashakkori and Teddlie (1998) identified (a) concurrent mixed data analyses, comprising parallel mixed analysis (i.e., triangulation), concurrent analysis of the same qualitative data using both quantitative and qualitative techniques, and concurrent

analysis of the same quantitative data using both quantitative and qualitative techniques; and (b) sequential analyses, consisting of qualitative data analysis followed by confirmatory quantitative data collection and analysis, and quantitative data analysis followed by qualitative data collection and analysis.

Most recently, Onwuegbuzie (2000d) provided a rationale for reporting and interpreting effect sizes in qualitative research. Onwuegbuzie noted that when conducting typological analyses, qualitative analysts only identify emergent themes; however, these themes can be quantitized to ascertain the hierarchical structure of emergent themes. Subsequently, he presented a typology of effect sizes in qualitative research. Additionally, Onwuegbuzie illustrated how inferential statistics can be utilized in qualitative data analyses. According to this author, "this can be accomplished by treating words arising from individuals, or observations emerging from a particular setting, as sample units of data that represent the total number of words/observations existing from that sample member/context" (p. 2). Onwuegbuzie argued that inferential statistics can be used to provide more complex levels of *verstehen* than is presently undertaken in qualitative research.

Conclusion

The present paper provided a historical background of the quantitative-qualitative debate. It was argued that no one paradigm is a hegemony in educational research. Also, the claim by purists that quantitative and qualitative research paradigms are not compatible were refuted. Moreover, evidence was provided that rejects the assertions of purists on both ends of the epistemological continuum. In so doing, several myths held by these

purists were discussed. It was asserted that recognizing such myths allows one to re-frame how research paradigms should be viewed.

Further, it was contended that a false dichotomy exists between the paradigms; rather, positivist and non-positivist philosophies lie on an epistemological continuum. Indeed, all the various dichotomies that are used to distinguish quantitative and qualitative paradigms should be re-conceptualized as lying on continua. Because there is no one-to-one correspondence between paradigm and method, a call was made for researchers to strive for epistemological ecumenicalism by using mixed methodological approaches. Mixed methodological designs represent research designs that include at least one quantitative method and one qualitative method utilized either concurrently or sequentially at the data collection, data analysis, and/or data interpretation stages of the research process. These designs, which have their roots in pragmatism, involves juxtaposing quantitative and qualitative research techniques within the same study or framework.

A myriad of reasons and purposes were provided for combining research methods, and advantages of this pragmatic approach were outlined. Finally, a summary was provided of different ways of conducting mixed methods analyses. Armed with a growing literature in mixed methods research, there is little reason why every researcher should not at least consider adopting such an approach. As noted by Morse (1991), researchers who claim to purport to philosophical underpinnings of only one research paradigm have lost sight of the fact that research methodologies are merely tools at our disposal for facilitating understanding of phenomena. One this is realized, it is hoped that positivists, post-positivists, post-structuralists, post-modernists, and others will begin to *get along*.

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